Application No.: 09/840085 Docket No.: YU-P01-021

## **Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

## **Listing of Claims:**

- 1. (Currently amended) An avian pancreatic polypeptide modified by substitution of at least one amino acid residue, said at least one residue being exposed on the alpha helix domain of the polypeptide when the polypeptide is in a tertiary form, wherein said at least one substituted residue is selected from a site on a known protein through which interaction with a Bcl2 protein occurs, wherein said avian pancreatic polypeptide binds to the Bcl2 protein.
- 2. (Original) The modified polypeptide of claim 1, wherein at least six substituted residues are substituted.
- 3. (Original) The modified polypeptide of claim 1, wherein at least eight substituted residues are substituted.
- 4. (Original) The modified polypeptide of claim 1, wherein at least ten substituted residues are substituted.
- 5. (Original) The modified polypeptide of claim 1, wherein at least twelve substituted residues are substituted.
- 6-11. (Canceled)
- 12. (Currently amended) The modified polypeptide of claim 61, wherein the known protein is a Bcl-2 protein.
- 13. (Currently amended) A modified avian pancreatic polypeptide of 6 or 12 1, wherein the interaction between the known protein and another molecule the Bcl2 protein is inhibited.
- 14. (Withdrawn -currently amended) A phage-display library comprising a plurality of recombinant phage that express the modified avian pancreatic polypeptide of any of claims 1 through 12 claim 1

Application No.: 09/840085 Docket No.: YU-P01-021

15. (Withdrawn - currently amended) A phage-display library comprising a plurality of recombinant phage that express the modified avian pancreatic polypeptide of any of claims 1 through 12 claim 1.

- 16. (Withdrawn) A phage-display library comprising a plurality of recombinant phage that express a protein scaffold modified by substitution of at least one amino acid residue, said at least one residue being exposed on the polypeptide when the polypeptide is in a tertiary form.
- 17. (Withdrawn) The phage-display library of claim 16, wherein said protein scaffold comprises the avian pancreatic polypeptide.
- 18. (Withdrawn) A phage selected from the library of claim 16 or 17.
- 19. (Previously presented) An isolated avian pancreatic polypeptide modified by substitution of at least one amino acid residue, wherein the polypeptide is selected from the group consisting of:
  - (a) an isolated polypeptide comprising the amino acid sequence of SEQ ID NO: 23;
  - (b) an isolated polypeptide comprising a fragment of at least twelve (12) amino acids of SEQ ID NO: 23;
  - (c) an isolated polypeptide comprising the amino acid sequence of SEQ ID NO: 23, wherein the polypeptide has one or more conservative amino acid substitutions in SEQ ID NO: 23, and is at least 65% identical to SEQ ID NO: 23;
  - (d) an isolated polypeptide comprising the amino acid sequence of SEQ ID NO: 23, wherein the polypeptide has one or more naturally occurring amino acid substitutions in SEQ ID NO: 23, and is at least 65% identical to SEQ ID NO: 23; and
  - (e) an isolated polypeptide with at least ninety-five (95) percent amino acid homology to SEQ ID NO: 23, and

wherein the polypeptide binds to a Bcl-2 protein.

Application No.: 09/840085 Docket No.: YU-P01-021

20. (Withdrawn) A nucleic acid encoding any one of the polypeptides in claim 19.

- 21. (Withdrawn) A method of preparing a miniprotein that modulates the interaction between a known protein and another molecule, comprising the steps of:
  - (a) identifying at least one amino acid residue contributes to the binding between a known protein and another molecule; and
  - (b) modifying an avian pancreatic polypeptide by substitution of said at least one amino acid residue, such that it is exposed on the alpha helix domain of the polypeptide when the polypeptide is in a tertiary form.
- 22. (Withdrawn) A method of identifying a miniprotein that modulates the interaction between a known protein and another molecule, comprising the step of isolating at least one recombinant phage clone from the phage display library of claim 16 that displays a protein scaffold that modulates the association between a known protein and another molecule.
- 23. (Previously presented) The modified polypeptide of claim 12, wherein the known protein is the Bak protein.
- 24. (New) The modified polypeptide of claim 1, wherein the avian pancreatic polypeptide binds to the Bcl-X<sub>L</sub> protein.
- 25. (New) The modified polypeptide of claim 1, wherein the avian pancreatic polypeptide binds to the Bcl2 protein.
- 26. (New) The modified polypeptide of claim 1, wherein the avian pancreatic polypeptide comprises an amino acid sequence selected from SEQ ID NOs: 23, 24, 25, 26, 27, 28, and 29.
- 27. (New) The modified polypeptide of claim 19, wherein the avian pancreatic polypeptide comprises an amino acid sequence selected from SEQ ID NOs: 23, 24, 25, 26, 27, 28, and 29.